

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 February 2005 (24.02.2005)

PCT

(10) International Publication Number
WO 2005/017497 A1

(51) International Patent Classification⁷: **G01N 3/34**
(21) International Application Number:
PCT/CA2004/001493
(22) International Filing Date: 11 August 2004 (11.08.2004)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
2,437,323 14 August 2003 (14.08.2003) CA

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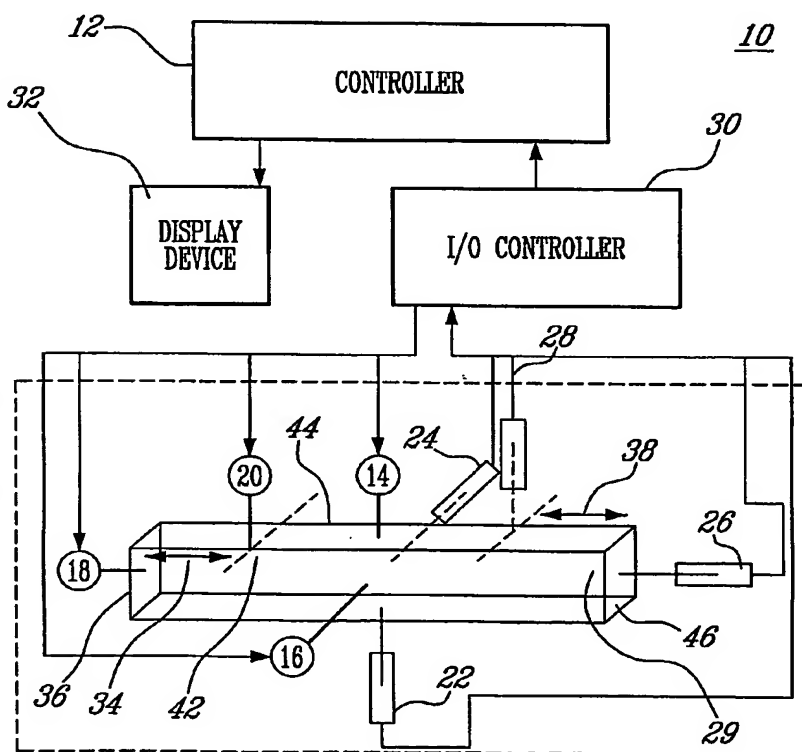
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR THE ELASTIC PROPERTIES MEASUREMENT OF MATERIALS



(57) Abstract: For heterogeneous materials such as refractories and carbon electrodes, the measurement the elastic properties of the material is difficult to achieve with high level of repeatability. The present invention is directed to a method and system for the elastic properties measurement of a material including the Elastic and Shear Modulus, as well as the Poisson's ratio of heterogeneous materials, at room and high temperature, according to a non destructive acoustic technique. The system comprises impacting devices for impacting a sample of the material so as to produce acoustic vibrations in the sample; acoustic detection devices so positioned relatively to the sample and the impacting device to capture the acoustic vibrations and to produce signals indicative of the acoustic vibrations; and a controller coupled to both the impacting devices and the acoustic detection device for controlling the impacting device, for receiving the signals from the acoustic detection devices and for using the signals to determine an elastic property of the material.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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